

### ***In the Claims***

The status of claims in the case is as follows:

1        1.    [Currently amended] A method for monitoring a computer  
2        application software system by reading log records written  
3        by said software system to determine performance of said  
4        software system relative to response time to end users,  
5        comprising:

6  
7                adjustably tuning performance evaluation bias by a  
8                computer software monitoring system between processor  
9                and memory consumption; [[and]]

10               responsive to said bias, monitoring performance of said  
11               computer ~~application~~ software system with respect to  
12               transaction time parameters including said response  
13               time to end users; and

14               receiving from a user a first tuning parameter for  
15               allocating memory for said monitoring performance and a  
16               second tuning parameter for specifying time out for in-  
17               flight units of work.

1        2-3. [Canceled]

1        4.    [Currently amended] The method of ~~claim 2~~ claim 1,  
2        further comprising:

3                initializing said memory with an in-flight transactions  
4                vector table for anchoring synonym chains of in-flight  
5                transaction cells;

6           accumulating time statistics for in-flight transactions  
7           in said in-flight transaction cells;

8           initializing said memory with a completed transactions  
9           table for storing time statistics for completed  
10          transactions;

11          receiving from said computer ~~application~~ software  
12          system a transaction log record for a unit of work;

13          hashing said first transaction log record to select  
14          from said vector table an anchor to an in-flight  
15          transaction cells chain corresponding to said unit of  
16          work;

17          searching said in-flight transaction cells chain for  
18          said unit of work;

19          responsive to finding said unit of work in said in-  
20          flight transaction cells chain, capturing to said in-  
21          flight transaction cell timing statistics from said  
22          transaction log record;

23          responsive to not finding said unit of work in said in-  
24          flight transaction cells chain, chaining a new in-  
25          flight transaction cell to said chain and capturing to  
26          said new in-flight transaction cell timing statistics  
27          from said transaction log record; and

28          determining if said transaction log record completes a  
29          transaction and, if so, updating said completed  
30          transactions table with timing statistics for said

31 transaction and removing said in-flight transaction  
32 cell from said in-flight transaction cells chain.

1 5. [Currently amended] The method of ~~claim 3~~ claim 1,  
2 further comprising

3 initializing said memory with an in-flight transactions  
4 vector table for anchoring synonym chains of in-flight  
5 transaction cells;

6 accumulating time statistics for in-flight transactions  
7 in said in-flight transaction cells;

8 initializing said memory with a completed transactions  
9 table for storing time statistics for completed  
10 transactions;

11 receiving from said computer ~~application~~ software  
12 system a transaction log record for a unit of work;

13 hashing said first transaction log record to select  
14 from said vector table an anchor to an in-flight  
15 transaction cells chain corresponding to said unit of  
16 work;

17 searching said in-flight transaction cells chain for  
18 said unit of work;

19 responsive to finding said unit of work in said in-  
20 flight transaction cells chain, capturing to said in-  
21 flight transaction cell timing statistics from said  
22 transaction log record;

23 responsive to not finding said unit of work in said in-  
24 flight transaction cells chain, chaining a new in-  
25 flight transaction cell to said chain and capturing to  
26 said new in-flight transaction cell timing statistics  
27 from said transaction log record;

28 determining if said transaction log record completes a  
29 transaction and, if so, updating said completed  
30 transactions table with timing statistics for said  
31 transaction and removing said in-flight transaction  
32 cell from said in-flight transaction cells chain; and

33 determining responsive to said second tuning parameter  
34 if a selected unit of work being accumulated in a  
35 selected in-flight transaction cell has timed out, and  
36 if so removing from said selected in-flight transaction  
37 cell from said in-flight transaction cell chain and  
38 selectively updating said completed transactions table  
39 with timing statistics for said selected unit of work.

·1 6. [Currently amended] A system for monitoring a computer  
2 application software system by reading log records written  
3 by said software system to determine performance of said  
4 software system relative to response time to end users,  
5 comprising:

6 a first user actuated tuning knob for allocating space  
7 in memory for performance monitoring;

8 a second user actuated tuning knob for a specifying  
9 time out value for in-flight units of work; and

10 a transaction monitor responsive to said first and  
11 second user actuated tuning knobs for accumulating, in  
12 synonym chain cells in said space, timing statistics  
13 for a plurality of said in-flight units of work.

1 7. [Original] The system of claim 6, further comprising:

2 said memory including an in-flight transactions vector  
3 table for anchoring synonym chains of in-flight  
4 transaction cells;

5 said in-flight transaction cells for accumulating time  
6 statistics for in-flight transactions;

7 said memory including a completed transactions table  
8 for storing time statistics for completed transactions;

9 a monitor for receiving from said computer ~~application~~  
10 software system a transaction log record for a unit of  
11 work;

12 said monitor hashing said first transaction log record  
13 to select from said vector table an anchor to an in-  
14 flight transaction cells chain corresponding to said  
15 unit of work;

16 said monitor for searching said in-flight transaction  
17 cells chain for said unit of work;

18 said monitor further responsive to finding said unit of  
19 work in said in-flight transaction cells chain for  
20 capturing to said in-flight transaction cell timing

21           statistics from said transaction log record;

22           said monitor further responsive to not finding said  
23           unit of work in said in-flight transaction cells chain  
24           for chaining a new in-flight transaction cell to said  
25           chain and capturing to said new in-flight transaction  
26           cell timing statistics from said transaction log  
27           record;

28           said monitor further for determining if said  
29           transaction log record completes a transaction and, if  
30           so, updating said completed transactions table with  
31           timing statistics for said transaction and removing  
32           said in-flight transaction cell from said in-flight  
33           transaction cells chain; and

34           said monitor further for determining responsive to said  
35           second tuning knob if a selected unit of work being  
36           accumulated in a selected in-flight transaction cell  
37           has timed out, and if so removing from said selected  
38           in-flight transaction cell from said in-flight  
39           transaction cell chain and selectively updating said  
40           completed transactions table with timing statistics for  
41           said selected unit of work.

1       8.   [Currently amended] A program storage device readable  
2       by a machine, tangibly embodying a program of instructions  
3       executable by a machine to perform method steps for  
4       monitoring a computer ~~application~~ software system by reading  
5       log records written by said software system to determine  
6       performance of said software system relative to response  
7       time to end users, said method comprising:

adjustably tuning performance evaluation bias between  
processor and memory consumption; [[and]]

responsive to said bias, monitoring performance of said  
computer ~~application~~ software system with respect to  
transaction time parameters; and

receiving from a user a first tuning parameter for  
allocating memory for said monitoring performance and a  
second tuning parameter for specifying time out for in-  
flight units of work.

9-10. [Canceled]

11. [Currently amended] The program storage device of  
~~claim 9~~ claim 8, said method further comprising:

initializing said memory with an in-flight transactions  
vector table for anchoring synonym chains of in-flight  
transaction cells;

accumulating time statistics for in-flight transactions  
in said in-flight transaction cells;

initializing said memory with a completed transactions  
table for storing time statistics for completed  
transactions;

receiving from said computer ~~application~~ software  
system a transaction log record for a unit of work;

hashing said first transaction log record to select

14           from said vector table an anchor to an in-flight  
15           transaction cells chain corresponding to said unit of  
16           work;  
  
17           searching said in-flight transaction cells chain for  
18           said unit of work;  
  
19           responsive to finding said unit of work in said in-  
20           flight transaction cells chain, capturing to said in-  
21           flight transaction cell timing statistics from said  
22           transaction log record;  
  
23           responsive to not finding said unit of work in said in-  
24           flight transaction cells chain, chaining a new in-  
25           flight transaction cell to said chain and capturing to  
26           said new in-flight transaction cell timing statistics  
27           from said transaction log record; and  
  
28           determining if said transaction log record completes a  
29           transaction and, if so, updating said completed  
30           transactions table with timing statistics for said  
31           transaction and removing said in-flight transaction  
32           cell from said in-flight transaction cells chain.

1       12. [Currently amended] The program storage device of  
2       ~~claim 10~~ claim 8, said method further comprising

3           initializing said memory with an in-flight transactions  
4           vector table for anchoring synonym chains of in-flight  
5           transaction cells;

6           accumulating time statistics for in-flight transactions



7           in said in-flight transaction cells;

8           initializing said memory with a completed transactions  
9           table for storing time statistics for completed  
10          transactions;

11          receiving from said computer ~~application~~ software  
12          system a transaction log record for a unit of work;

13          hashing said first transaction log record to select  
14          from said vector table an anchor to an in-flight  
15          transaction cells chain corresponding to said unit of  
16          work;

17          searching said in-flight transaction cells chain for  
18          said unit of work;

19          responsive to finding said unit of work in said in-  
20          flight transaction cells chain, capturing to said in-  
21          flight transaction cell timing statistics from said  
22          transaction log record;

23          responsive to not finding said unit of work in said in-  
24          flight transaction cells chain, chaining a new in-  
25          flight transaction cell to said chain and capturing to  
26          said new in-flight transaction cell timing statistics  
27          from said transaction log record;

28          determining if said transaction log record completes a  
29          transaction and, if so, updating said completed  
30          transactions table with timing statistics for said  
31          transaction and removing said in-flight transaction

32 cell from said in-flight transaction cells chain; and  
33 determining responsive to said second tuning parameter  
34 if a selected unit of work being accumulated in a  
35 selected in-flight transaction cell has timed out, and  
36 if so removing from said selected in-flight transaction  
37 cell from said in-flight transaction cell chain and  
38 selectively updating said completed transactions table  
39 with timing statistics for said selected unit of work.

1 13. [Currently amended] A computer program ~~product~~ storage  
2 device for storing programming instructions for monitoring a  
3 computer ~~application~~ software system by reading log records  
4 written by said software system to determine performance of  
5 said software system relative to response time to end users  
6 according to the method comprising:

7 first program instructions for adjustably tuning  
8 performance evaluation bias by a software system  
9 monitor between processor and memory consumption; and

10 second program instructions, responsive to said bias,  
11 for monitoring performance of said computer ~~application~~  
12 software system with respect to transaction time  
13 parameters; and wherein

14 said first and second program instructions are recorded  
on said storage device.